

Subsistence In Alaska: 1994 Update

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Introduction

Subsistence fishing and hunting are important for the economies and cultures of many families and communities in Alaska. This report provides an update on subsistence in Alaska, including participants, harvest levels, and current legal issues.

What is Subsistence?

State and federal laws define subsistence as the "customary and traditional" uses of wild resources, for food, clothing, fuel, transportation, construction, art, crafts, sharing, and customary trade. Customary and traditional uses of fish and game are important to Alaskans from diverse cultural backgrounds, including Aleut, Athabaskan, Alutiiq, Euroamerican, Haida, Inupiat, Tlingit, Tsimshian, and Yup'ik. Harvesting, sharing, and using fish and wildlife are integral to the customs and traditions of a variety of cultural groups.

Subsistence uses also are important for Alaska's economy. Many Alaskan communities depend upon mixed, subsistence-cash economies, where subsistence production

is a major economic sector. The household economies of many families are dependent upon food and raw materials from subsistence activities.

State and federal subsistence statutes recognize the importance of customary and traditional subsistence uses of wild resources. Subsistence uses are given a preference over commercial fishing and recreational fishing and hunting in state and federal law.

Who Participates in Subsistence Uses?

State and federal laws differ in who qualifies for subsistence uses. Currently, all state residents qualify for subsistence fishing and hunting under state law. In 1990, there were 550,043 people living in Alaska (Fig. 1).

Under federal law, rural residents (about 21% of the population 1990) qualify for subsistence fishing and hunting on federal lands in Alaska. Of the 116,653 rural residents 55,888 were Alaska Natives (48%) and 60,765 were not Alaska Native (52%), while of the 433,390 urban residents, 29,810 were Alaska Natives (16%) and 403,580 were not Alaska Natives (84%).

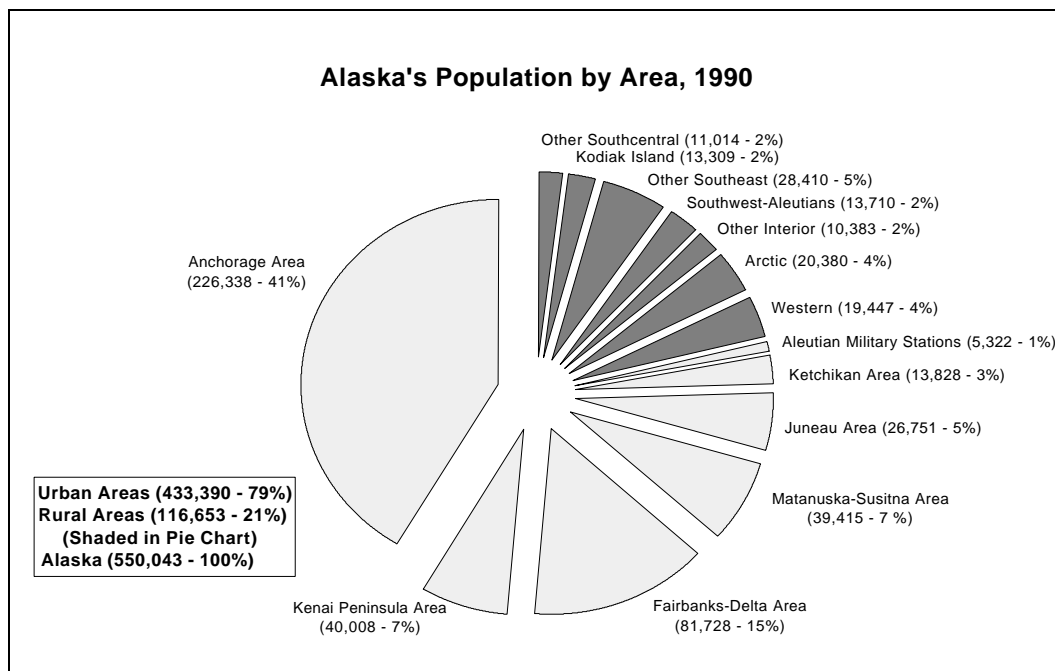


Figure 1

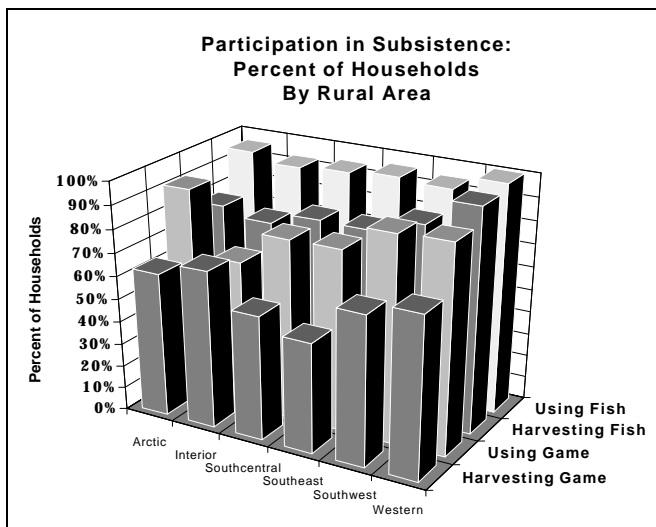


Figure 2

A substantial proportion of rural households harvest and use wild foods (Fig. 2). For surveyed communities in different rural regions, from 92%-100% of sampled households used fish, 75%-98% used wildlife, 75%-98% harvested fish, and 48%-70% harvested wildlife. Because subsistence foods are widely shared, most residents in rural communities make use of subsistence foods during the course of the year to some extent. A substantial number of urban residents engage in hunting and fishing also, as shown by the number of licenses sold in 1991: Anchorage-Matanuska-Susitna Area (32,428; 12 percent of all residents), Fairbanks Area (11,059; 14 percent), Kenai Peninsula Area (8,282; 20 percent), Ketchikan (2,648; 19 percent) and Juneau (3,683; 14 percent).

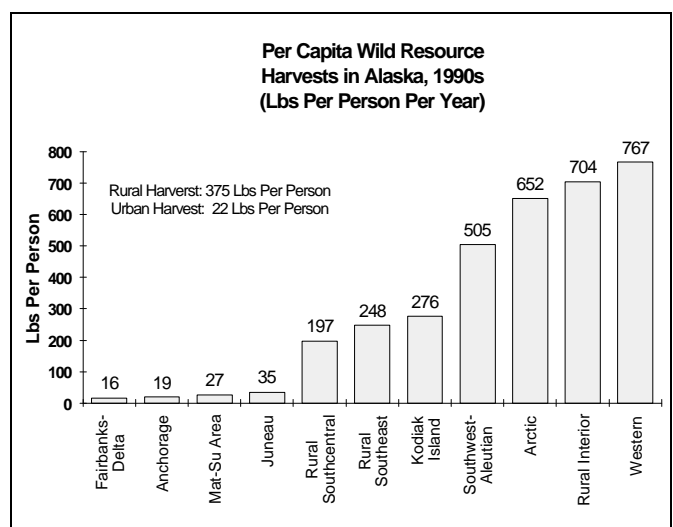


Figure 4

Wild Food Harvests in Alaska

Subsistence fishing and hunting provides a major part of the food supply of rural Alaska (Fig. 3). Our best estimate is that about 43.7 million lbs (usable weight) of wild foods are harvested annually by residents of rural areas of the state, and 9.8 million lbs by urban residents.

On a per person basis, the annual wild food harvest is about 375 lbs per person per year for rural areas (about a pound a day per person), and 22 lbs per person for urban areas (Fig. 4). Harvests vary substantially by area, with the greatest average regional harvests (about 500-800 lbs per person) in communities off the state's road system.

The composition of the wild food harvest by rural residents

is about 59% fish, 20% land mammals, 14% marine mammals, 2% shellfish, 2% birds, and 2% plants (Fig. 5). The harvest by urban residents is 68% fish, 30% land mammals, 1% birds, and 1% shellfish and plants.

The Nutritional Value of Subsistence Harvests

The subsistence food harvest provides a major part of the nutritional requirements of Alaska's population.

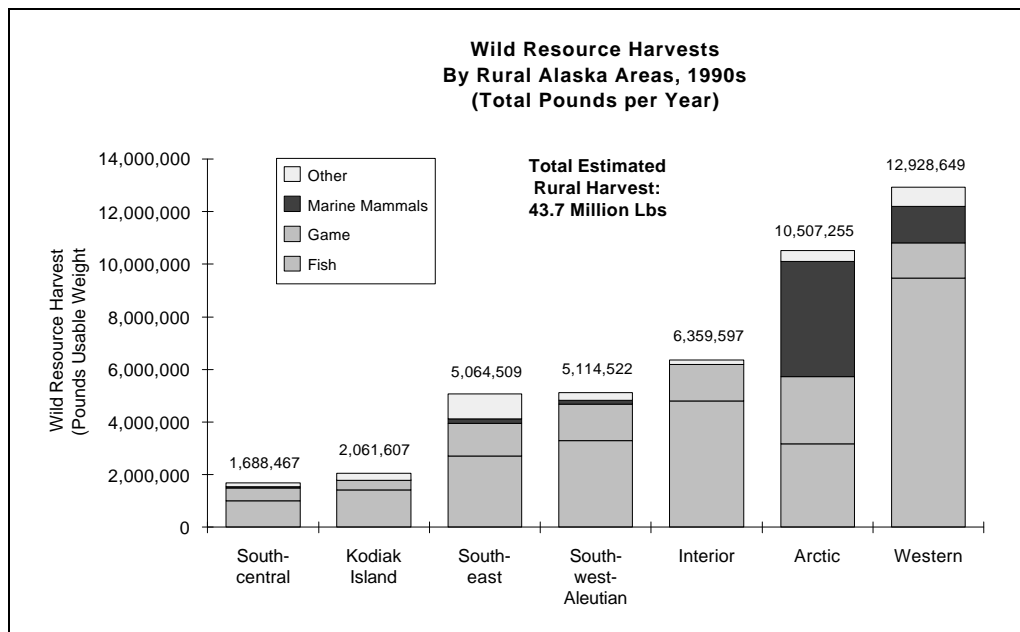


Figure 3

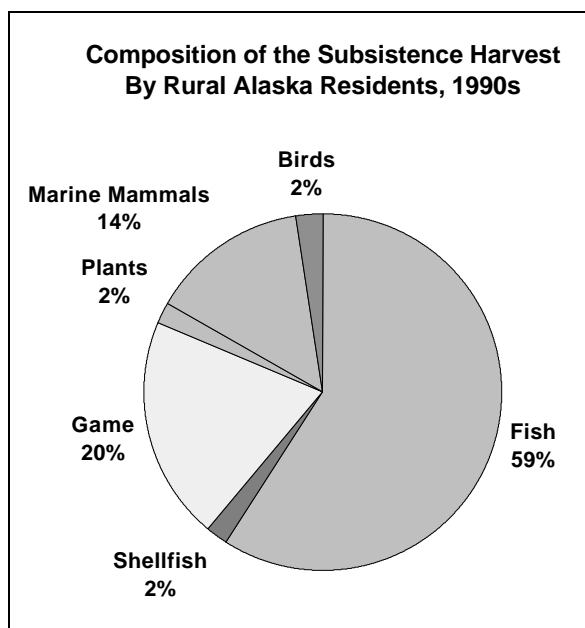


Figure 5

The annual rural harvest of 375 lbs per person contains 243% of the protein requirements of the rural population (that is, it can supply about 107 grams of protein per person per day; about 44 grams is the mean daily requirement). The subsistence harvest contains 35% of the caloric requirements of the rural population (that is, it contains about 840 Kcal daily, assuming a 2,400

Kcal/day mean daily requirement). The urban wild food harvests contain 15% of the protein requirements and 2% of the caloric requirements of the urban population.

The Monetary Value of Subsistence Harvests

Subsistence fishing and hunting are important to the local economies of many areas in Alaska. Attaching a dollar value to subsistence uses is difficult, as subsistence products generally do not circulate in markets. However, if families did not have subsistence foods, substitutes would have to be imported and purchased, which would require larger cash incomes. If one assumes a replacement expense of \$3-\$5 per pound, the simple "replacement costs" of the wild food harvests in rural Alaska may be estimated at \$131.1-\$218.6 million dollars annually (Fig. 6).

The monetary value of subsistence harvests is substantial when compared with cash incomes of families in many rural areas. For instance, the per capita cash value of subsistence foods in the rural interior (\$3,063 per person) compares with a per capita income of only \$6,205 for Native families -- the cost of replacing subsistence foods would be 49% of mean incomes in that case. Similarly, subsistence replacement costs represent 59% of Native family income in the western region, 31% of Native family income in the arctic region, and 22% of Native family income for all rural Alaska. The replacement value of wild

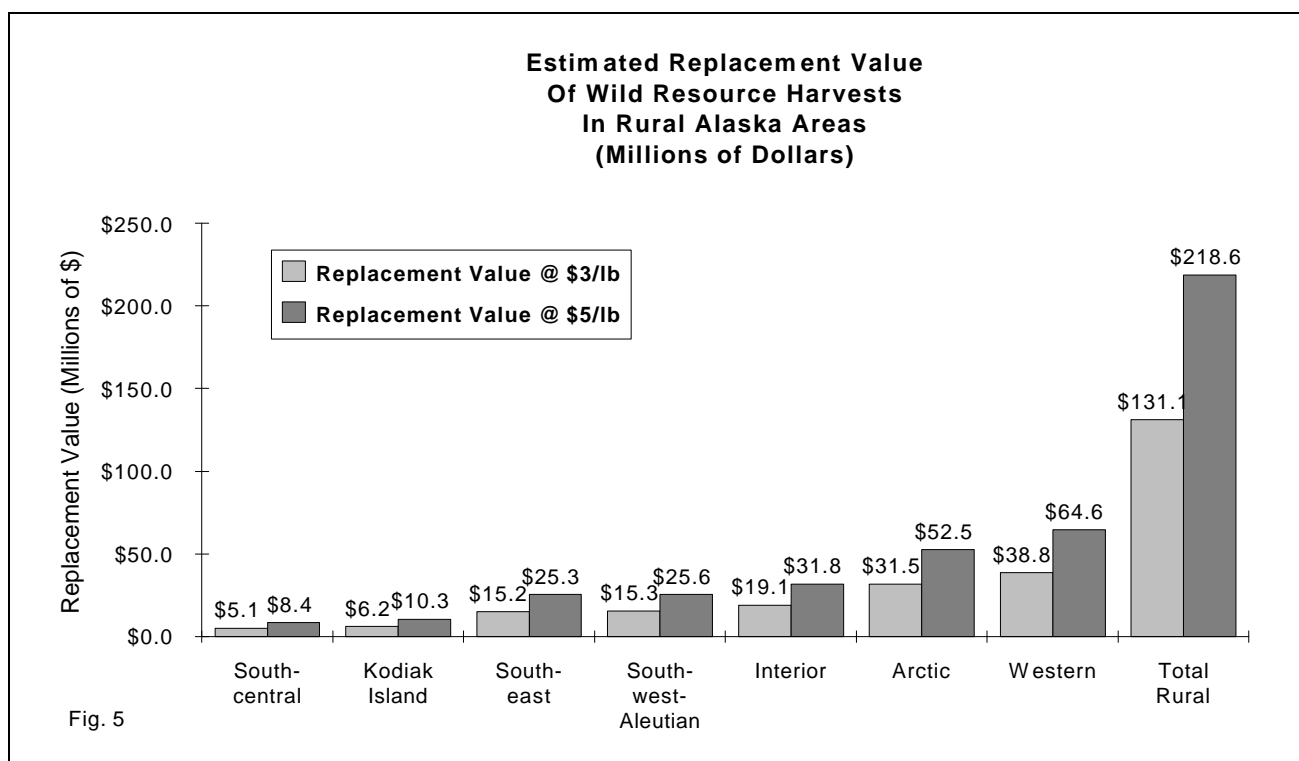


Figure 6

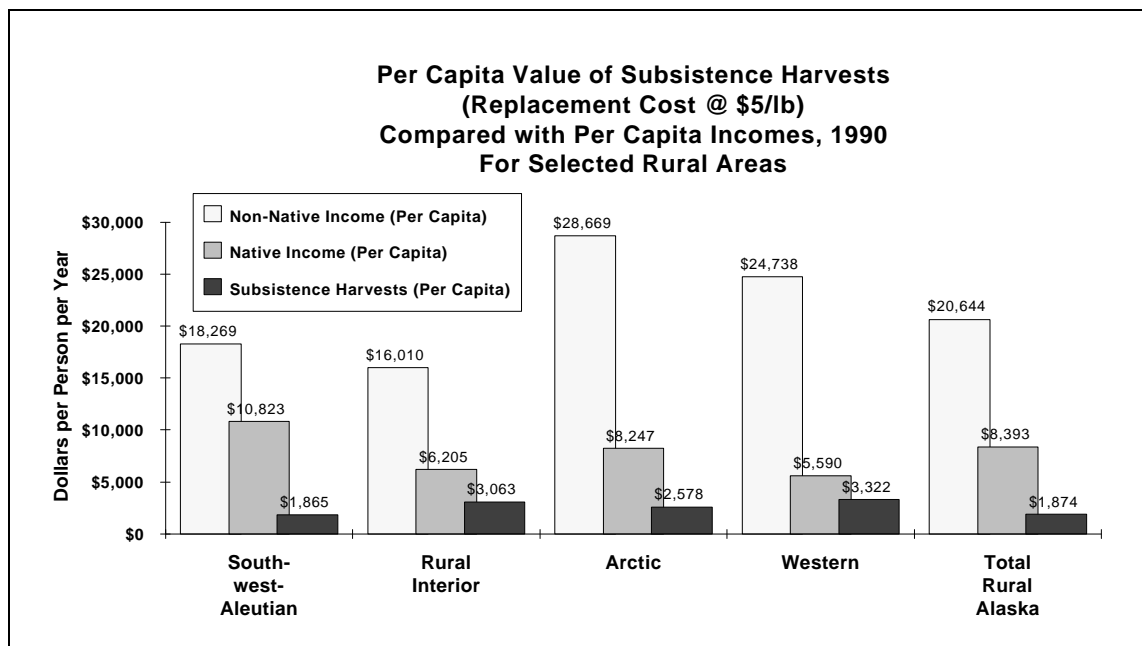


Figure 7

foods represents about 10% of the average rural non-Native income (Fig. 7). Clearly, many families would have difficulty paying cash for foods to replace the subsistence harvest

Real Employment

Subsistence harvesting, processing, and non-market distribution employ large numbers of rural residents annually. While wage paying jobs are commonly few and insecure in rural areas, work in fishing, hunting, and processing wild foods employs people consistently from one year to the next. For instance, in Ft. Yukon along the Yukon River in 1987, 82% of households hunted, and 65% fished. The subsistence take was about 680 lbs per person. These activities employed more people than the single largest wage employer in Ft. Yukon (local government), which employed persons from 40% of the community's households that year.

Subsistence activities are organized locally and draw upon local knowledge and skills. Subsistence is an area of life where extended families can support themselves in meaningful, productive work.

Legal Framework for Subsistence Management

Subsistence management has undergone considerable change since 1989, when state law fell out of compliance with federal requirements. In 1994, subsistence hunting and fishing was being managed under two separate legal frameworks. The Alaska Boards of Fisheries and Game

developed subsistence regulations for state and private lands and navigable waters, for which all state residents qualified. A Federal Subsistence Board developed subsistence regulations for federal public lands and waters, for which rural residents qualified. In addition, the federal National Marine Fisheries Service and Fish and Wildlife Service regulated marine mammal hunting under the Marine Mammal Protection Act, for which Alaska Natives qualified.

State and federal governments agree that split federal-state management of fish and wildlife is undesirable. However, the way to regain unified state subsistence management authority is uncertain at this time. It is expected that the federal subsistence management program may continue to grow over the next few years, and that jurisdictions and authorities will ultimately be clarified through administrative and judicial activity.

Summary

Subsistence continues to be an important part of the diverse cultures and regional economies in Alaska. Subsistence fishing and hunting produce a substantial portion of the state's food supply, particularly in rural areas. Subsistence provides a measure of economic stability in areas with mixed, subsistence-cash economic systems. And subsistence expresses customary and traditional values and ways of living that are important to Alaska's diverse cultural groups.

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